



## FULTON AWARDS 2013

The winners of this year's Fulton Awards presented by the [Concrete Society of Southern Africa \(CSSA\)](#) were announced at a gala function on the 8<sup>th</sup> June.

The awards are presented every two years and the judging panel this year included:

- Peter Kleynhans- President of the South African Institution of Civil Engineering ([SAICE](#))
- Sindili Ngonyama-President of the South African Institute of Architects ([SAIA](#))
- John Sheath- CEO of the [Concrete Society of Southern Africa](#)

In thanking the President during his opening address, John Sheath said it was particularly special for him to travel around the country and Windhoek in Namibia with Peter Kleynhans and Sindile Ngonyama, who taught him a great deal about what is innovative and unique in engineering and architectural concrete.

On behalf of the judges he thanked the project teams that accompanied them on the necessary tours of the Fulton Awards' 26 entries, saying, "To us they were all winners, with exceptional design work, concrete technology and innovative construction that would hold its own anywhere in the world."

## Winner of the Innovative Construction Award: The Podium at Menlyn

Developer: Emira Property Fund

Client: Eris Property Group

Architects: Boogertman & Partners

Project manager: PPM Project Managers

Quantity surveyor: Pentad Quantity Surveyors

Electrical engineers: Quad Africa Consulting

Structural engineers: DG Consulting Engineers

Mechanical engineers: Spoomaker and Partners

Civil engineers: Civil Concepts

Interior architect: BPI (Boogertman and Partners Interiors)

Landscape architect: Uys and White Architects

Main Contractor: WBHO Construction

Sub-Contractor 1: PERI South Africa

Sub-Contractor 2: Lafarge South Africa Holdings - Concrete

Sub-Contractor 3: DG Consulting Engineers (Pty) Ltd

The citation states that the engineer required the concrete feature walls to be part of the structural framework of the building, and hence the contractor had to cast portions of the feature walls simultaneously with the main frame of the building. This meant that the down-stand portions of the feature walls were cast simultaneously with the first floor slab. Similarly, the most upper portion of the wall was required to be one continuous pour together with the roof slab.

The methodology used for the construction of the concrete feature walls was truly impressive and resulted in the building's entire facade's grid being set out using the geometrical grid of the concrete feature walls.

The creation of a 3-dimensional triangle was a construction feat in itself on this project. The triangular forms in the concrete facade were created by means of 35mm deep recesses, and triangular windows allowed natural light to filter into the internal office space.

The Podium at Menlyn is a deserving winner of the Innovative Construction category of the Fulton Awards.

#### *The Gateway to the Menlyn Node*

Podium at Menlyn has become the gateway to the Menlyn node, which is fast becoming an A-Grade business hub. The success of the project can be attributed to the unbeatable combination of creative design talent,

technical and project management expertise, the support of a dynamic interior department and a client who had complete faith.

The seamless triangular union of glass and off-shutter concrete was inspired by ancient engraved artworks found in the Blombos Caves on the Southern Cape coast of South Africa. This symbolises a bridge between a 77 000 year old culture and the future of South Africa. Inspiration was also drawn from the ancient Chinese Tangram dissection puzzle. The design team met the client's 'Icon' part of the brief by transforming this ancient game into a magnificent triangular grid, which features on the eastern and southern facades of the building. The abstract design is produced as a modular unit that can be configured into a geometric grid, making the implementation of the design an exact science and representing a synthesis of mathematics, symbolic systems and art.

Even the basement and lift lobby artwork makes use of these tans to create a 'geometrical garden' within an urban space, giving one the feeling of being in a digital landscape. The artwork transforms a once dull basement into an exciting space, through which one enters for a day's work. The design suggests both the archaic nature of its origins and the sophistication of 21st century technology.

There is a saying that goes 'Be so good they can't ignore you'. The winners believe Podium at Menlyn cannot be ignored.



## **Winner of the Civil Engineering Structure and Sustainable Concrete Awards: De Hoop Dam, Nr. Steelpoort, Limpopo**

Client: Dept. of Water Affairs - Capital Project

Principal agent: De Hoop Dam Consultants (DHDC)

Main contractor: Dept. of Water Affairs - Construction West

The citation for the Civil Engineering Structure Award states that De Hoop Dam will be one of the biggest roller-compacted concrete dams in South Africa with a total concrete volume of more than 1million m<sup>3</sup>. The judges were highly impressed with the attention paid to reaching the optimum mix design that yielded vast improvement in the roller-compacted concrete. This work led to the use of immersion vibration of the RCC, which, whilst not

new to the construction industry, was a first in roller-compacted concrete dam construction. IVRCC was used against the formwork and rock abutment as interface concrete in the main dam achieving an excellent finish and a high in-situ quality.

This also led to a significant simplification of the construction process and allowed one of the highest construction rates achieved in South Africa with a peak of more than 130 000m<sup>3</sup> of Roller-Compacted Concrete placed in one month.

The De Hoop Dam Project is truly a flagship project for the Department of Water Affairs and will address a significant part of the future water needs of the Limpopo Province. The judges had no hesitation in proclaiming this project the winner of the Fulton Award in the Civil Engineering Structure category.

### **De Hoop Dam, nr. Steelpoort, Limpopo also won the Sustainable Concrete Award**

In their citation the judges noted that sustainability issues were paramount when designing and constructing this structure. The use of pulverised fly ash in the concrete mix up to a 70% level maximised the reduction in the carbon footprint of the concrete as well as assuring a highly-compacted and dense finished product - vital requirements in a dam that has to last in excess of 100 years.

Being on a heritage site and in an ecologically sensitive area, great attention was placed on environmental issues such as preserving protected species of flora and potential erosion. Also impressive were the extensive sustainability and environmental plans that were implemented.

This dam will contribute to the unlocking of economic potential and improving social development in the area, and the judges had no hesitation in naming this project as the Fulton Award winner in the Sustainable Concrete category.



**Winner of the Building Structure Award: SANRAL**

**Head Office**

Client: SANRAL SOC Ltd

Principal agent: Rouillard

Consulting engineers and architects: Activate Architecture (Pty) Ltd

Main contractor: G D Irons Construction

Sub-contractor 1: Pre-Form

Sub-contractor 2: Civil Concepts (Pty) Ltd

Sub-contractor 3: Plantech Consulting Engineers (Energy)

In selecting this project as the winner, the judges stated that this fascinating GBSCSA 4-star rated building is very worthy of the Fulton Award in the Building Structure Category. The use of concrete, apart from the accepted reasons of cost effectiveness and low maintenance, was chosen as it provided a visual and structural reference to flowing roads and spanning bridges that typifies the projects that SANRAL undertakes.



**Winner of the Architectural Concrete Award: 115 West Street, Sandton - Alexander Forbes**

Client: Zenprop Property Holdings (Pty) Ltd

Principal agent: Capex Projects

Civil and structural engineers: Sotiralis Consulting Engineers (Pty) Ltd

Main contractor: WBHO/Tiber Bonvec JV

Sub-contractor: Paragon Architects

The judges were very impressed with the use of concrete in this landmark office block within the Sandton CBD, and were pleased to declare this project as winner in the Architectural Concrete category. The building was

constructed to meet the stringent requirements of a 4 star rating as required by the Green Building Council of SA. Concrete played a major part in achieving this rating.

There was no award presented in the Community Structure category.

*And finally the Commendations for the various categories were as follows:*

### **Civil Engineering Structure**

Commendation – Chota Motala Incrementally-Launched Bridge

Commendation – UTCRCP and CRCP Concrete Pavements – N12

### **Building Structure**

Commendation – 115 West Street, Alexander Forbes

### **Architectural Concrete**

Commendation – The Podium at Menlyn

Commendation – SANRAL Head Office

### **Sustainable Concrete**

Commendation – Gauteng Freeway Improvement Project Packages E1 and E2

Commendation – Koeberg Interchange

### **Innovative Construction**

Commendation – Mahatma Gandhi

Commendation – UTCRCP and CRCP Concrete Pavements – N12

Tags:

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